

AMENDMENT TO THE CLAIMS

Claims 1, 2, 4, 6-9, 21, 23-25, 27, 28, and 30-32 are currently pending. Please cancel claims 1-2, 4, 6-9, 27-28, and 30 without acquiescence in the Office Action's basis for rejections nor prejudice to pursue in a related application. A complete listing of the current pending claims is provided below and supersedes all previous claims listing(s). No new matter has been added.

1-20. (Cancelled)

21. (Previously Presented) A multicast packet duplication system for multicast packets containing at least multicast address data, comprising:

an input port configured to receive a packet;

a pointer table having a width comprising a plurality of entries coupled to a linked-list table; and

a plurality of output ports configured to output the packet, the plurality of output ports being coupled to one or more Virtual Local Area Networks (VLAN), wherein

the linked-list table having entries that comprises at least either multicast descriptors or pointers to multicast descriptors

the multicast descriptors comprising at least multicast VLAN descriptors or pointers to multicast VLAN descriptors, wherein

a number of distributions of the multicast packet for an output port for distribution of the multicast packet is controlled by information stored in either the multicast

descriptors or multicast VLAN descriptors and is distributed on a per port basis by distributing the number of distributions on at least one of the plurality of the output ports that is specified in the multicast descriptors rather than by distributing the packet, which has been received at the input port, on all of the plurality of output ports,

at least one of the multicast descriptors or the multicast VLAN descriptors is shared among multiple output ports of the plurality of output ports, and

an encoding format of the multicast VLAN descriptors or the multicast descriptors includes at least one of:

a contiguous range encoding that includes a starting VLAN indicator and an ending VLAN indicator for a first set of the multicast descriptors or the multicast VLAN descriptors within the contiguous range;

a non-contiguous range encoding that includes information or data of a most significant bit (MSB) portion of a VLAN indicator; and

a discrete encoding that includes a first VLAN indicator and a second VLAN indicator.

22. (Cancelled)

23. (Currently Amended) The multicast packet duplication system of claim 21, wherein said multicast descriptors also include a multicast packet time to live field.

24. (Currently Amended) The multicast packet duplication system of claim 21, wherein said multicast Virtual Local Area Network (VLAN) descriptors contain a plurality of entries each describing the multicast packet distribution to a different VLAN.

25. (Previously Presented) A multicast packet duplication system for multicast packets containing at least multicast address data, comprising:

an input port configured to receive a packet;

a pointer table having a width comprising a plurality of entries coupled to a linked-list table;

a plurality of output ports configured to output the packet, the plurality of output ports being coupled to one or more Virtual Local Area Networks (VLAN), wherein

the linked-list table having entries that comprises at least either multicast descriptors or pointers to multicast descriptors; and

the multicast descriptors comprising one or more multicast VLAN descriptors or one or more pointers to the one or more multicast VLAN descriptors, wherein

a number of distributions of the multicast packet and an output port distribution of the multicast packet is controlled by information stored in either the multicast descriptors or the one or more multicast VLAN descriptors and is distributed on a per port basis by distributing the number of distributions on at least one of the plurality of the output ports that is specified in the multicast descriptors rather

than by distributing the packet, which has been received at the input port, on all of the plurality of output ports,

at least one of the one or more multicast VLAN descriptors or the multicast descriptors is shared among multiple output ports of the plurality of output ports,

the one or more multicast VLAN descriptors comprise a plurality of entries each describing at least some of the number of distributions to a different VLAN, and

an encoding format of the one or more multicast VLAN descriptors includes at least one of:

- a contiguous range encoding that includes a starting VLAN indicator and an ending VLAN indicator for a first set of the multicast descriptors or the one or more multicast VLAN descriptors within the contiguous range;
- a non-contiguous range encoding that includes information or data of a most significant bit (MSB) portion of a VLAN indicator; and
- a discrete encoding that includes a first VLAN indicator and a second VLAN indicator.

26-30. (Cancelled)

31. (Previously Presented) The multicast packet duplication system of claim 21, wherein some of the multicast descriptors are configured or programmed for:

duplicating a first number of duplications of the packet on a first output port of the plurality of output ports; and

duplicating a second number of duplications of the packet on a second output port of the plurality of output ports, in which the first number is different from the second number.

32. (Previously Presented) The multicast packet duplication system of claim 25, wherein some of the multicast descriptors are configured or programmed for:

duplicating a first number of duplications of the packet on a first output port of the plurality of output ports; and

duplicating a second number of duplications of the packet on a second output port of the plurality of output ports, in which the first number is different from the second number.